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# **Social Desirability and Cynicism Biases in CSR Surveys: An Empirical Study of Hotels**

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## **Abstract**

**Purpose:** Previous studies support the notion that corporate social responsibility (CSR) initiatives can have a positive effect on customers in the hospitality and tourism industry. However, most of these studies have ignored response biases and none have incorporated them into their analyses numerically. This study aims at closing this research gap.

**Design/methodology/approach:** We utilized a hybrid choice model to test for the hypothesized effects of social desirability (SD) and cynicism biases on reported purchase intention. We further compared the results with those of analyses that ignore these biases to demonstrate their distorting influence.

**Findings:** Our results indicate that SD and cynicism biases have a moderating effect on reported purchase intention. Older generations and frequent travelers seem particularly prone to bias, and the biases have a distorting effect on the overall survey results.

**Research limitations/implications:** Traditional analyses that exclude biases, incorrectly, suggest several aspects of CSR that are significant (or insignificant) to purchase intention and provide unreliable results. We did not generalize bias-prone respondent segments but urge future research to investigate this.

**Practical implications:** Hotel managers aspiring to gain competitive advantage through CSR investment must consider biases in their market research. Otherwise, they risk developing CSR initiatives that do not instigate positive customer behaviors, leading to the failure of the investment.

**Originality/value:** We quantified SD and cynicism as significant causes of response bias, which distorts survey results. Previous studies have conceptualized SD without quantifying its impact,

while cynicism has been identified as a novel source of bias in the industry. This study further introduces hybrid choice modeling as a novel approach to address response bias that could extend itself beyond the industry studied here.

## Introduction

In large-scale surveys, a majority of consumers express their enthusiasm sustainable and ethical products (Accenture *et al.*, 2014; Nielsen, 2014, 2019). In the hospitality and tourism industry, academics have actively studied the effect that corporate social responsibility (CSR), ethical business, and sustainable business practices have on potential customers, and several recent literature reviews synthesize the findings (see Font and Lynes, 2018; Gao *et al.*, 2016; Serra-Cantallops *et al.*, 2018). The results are often encouraging, as they suggest that tourists and hotel guests are interested in and potentially willing to pay more for ethical and sustainable business. As tourism represents “a ‘want’ rather than a ‘need’” (Font and McCabe, 2017, p. 870), it is an ideal candidate for companies to seek competitive advantage through related offers. Moreover, customers, if motivated to do so, may pay extra for good business practices. Thus, these positive research findings could serve as a significant motivator for companies.

However, while these results are promising, consumer-oriented CSR survey results are prone to bias. Two major biases are particularly notable due to their distorting effects. One is linked with social desirability (SD), defined as “a need for social approval and acceptance and the belief that this can be attained by means of culturally acceptable and appropriate behaviors” (Crowne and Marlowe, 1960, p. 109). SD may lead to exaggerated consumer interest in CSR during surveys and cause result bias (Beckmann, 2007; Devinney *et al.*, 2006; Fernandes and

Randall, 1992). Steenkamp *et al.* (2010) emphasized the importance of including SD in market research analysis. The second bias is caused by cynicism, defined as a “coping process, where consumers learn to become defensive after observing they have been taken advantage of” (Chylinski and Chu 2010, p. 797). Cynicism severely hinders any attempts to achieve positive customer responses via CSR or environmental sustainability as it can dampen the favorable effects of CSR initiatives (Bhattacharya and Sen, 2004; Mohr *et al.*, 1998; Vallaster *et al.*, 2012). Cynicism can lead consumers to distrust businesses and their CSR claims (Jahdi and Acikdilli, 2009), which leads to cynicism bias or a “blanket rejection of all CSR aspects in a survey” (Kuokkanen and Sun, 2016, p. 220).

Tourists are prone to SD bias, behaving in a more environmentally friendly manner at home as compared to when they travel (Miao and Wei, 2013). On holiday, tourists tend to associate environmentally sustainable practices with either a loss of luxury or outright inconvenience (Baker *et al.*, 2014). Most surveys are typically taken at home, and respondents are likely to align with their household behavior as the socially desirable survey response. Once away from home, the hedonistic influences of travel and tourism (Font and McCabe, 2017; Font *et al.*, 2017) can take over and render their earlier responses disingenuous. Further supporting this assessment, Doran and Hanss (2019) stated that SD bias can distort self-reported variables in tourism studies.

Greenwashing is defined as “misleading consumers about firm environmental performance or the environmental benefits of a product or service” (Delmas and Cuerel Burbano, 2011, p. 64). Greenwashing allegations are a long-standing issue in the hospitality and tourism industry, originally attributed to the practice of hotels asking their guests to reuse towels for environmental reasons (Font and Lynes, 2018). Greenwashing represents the exact dubious

motives that cynics repudiate. Consequently, tourism businesses may practice “greenhushing,” which is defined as reporting fewer sustainability actions than actually practiced to protect “business from more cynical consumers who may interpret their statements as hypocritical” (Font *et al.*, 2017, p. 1007). The inherent distrust that defines cynicism bias, combined with examples of greenwashing in the industry, may cause cynical survey respondents to understate the importance of CSR practices. However, this may not represent their actual purchase intention if businesses engage in greenhushing and do not communicate their initiatives clearly. Thus, the findings regarding reported purchase intention may be distorted by cynicism bias.

Despite the threat to result validity these two main biases create, research in the field has largely ignored them. This observation is the starting point of our research. To support it, we combined customer-focused hospitality and tourism research from three literature reviews (Font and Lynes, 2018; Gao *et al.*, 2016; Serra-Cantalops *et al.*, 2018) with a literature search for more recent studies in leading hospitality and tourism journals. This resulted in identifying 43 articles published since 2008 that focus on the impact of CSR, sustainability, or ethical business practices on customer attitudes, intentions, or reported behaviors (Appendix 1). Six studies mentioned the risk of SD bias as a potential limitation and of these, two implemented survey situation-related measures to address it (Baker *et al.*, 2014; Lee *et al.*, 2017; Liu *et al.*, 2014; Martínez García de Leaniz *et al.*, 2018; Rahman *et al.*, 2015; Verma *et al.*, 2019). One article stated that guest cynicism posed a risk to business (Kim *et al.*, 2017). Based on the above summary, it appears that research largely overlooks the risk of these two biases. How do the biases influence CSR survey results in the field? To answer this question, we developed a CSR survey in a hotel context and employed an analysis technique that is new to the field and can quantify the biases numerically.

This study makes two important contributions to theory. First, this study is the first to quantify the impact of SD and cynicism on CSR survey results in a hotel context. We further analyzed the reported purchase intentions by including and excluding the two biases. The results support the need to include these biases in customer-focused research. Next, we utilized a hybrid choice model (HCM; also known as an integrated choice and latent variable model or ICLV model) to complement the research methods used in the hospitality field. Using HCM allowed us to include psychological biases in our analysis and specify the extent to which they influence the purchase intentions reported by consumers in surveys. This is a novel contribution since previous studies' methods have not been capable of such inclusion. Our approach also extends the use of choice models in tourism and CSR, with standard discrete choice models having been applied for the first time by Kallmuenzer *et al.* (2018; see Font and Lynes, 2018).

## **Literature review**

### *Social desirability bias and its impact on survey response*

Social desirability (SD) refers to the human tendency to behave in a manner considered to be socially desirable or acceptable (Arnold and Feldman, 1981; Kuncel and Tellegen, 2009); it contributes to common method biases (Podsakoff *et al.*, 2003). During surveys, this tendency prompts respondents to over-report their desirable attitudes or intentions, leading to biased results (Kuncel and Tellegen, 2009). In surveys about ethical consumption, a moralistic SD bias causes respondents to claim that their behavior is overly ethical, or saint-like, compared to the reality (Auger and Devinney, 2007; Beckmann, 2007; Paulhus, 2002).

SD bias, in most cases, leads to respondents exaggerating the importance of CSR and reporting inflated positive responses, while their purchase actions remain unaffected (Devinney

*et al.*, 2006; Carrigan and Attalla, 2001). This results in a gap between reported intentions and reality, thus reducing result validity. However, in line with SD's definition, respondents may also underemphasize their undesirable qualities to appear ethical. The ethics field has recognized SD bias as a factor in the mismatch between survey results and consumer behavior, known as the attitude-behavior or intention-behavior gap (Carrington *et al.*, 2010; Hassan *et al.*, 2016).

Therefore, recognizing the existence of this mismatch, Larson (2019) called for a further study of its measurement and control in marketing research. A similar proposal by Steenkamp *et al.* (2010) highlights the lack of recent activity in the domain.

#### *Methods to reduce SD bias in analysis results and their limitations*

Various methods exist that can reduce the risk of biased results. These include bias measurement and survey instrument and situation design. We focused on the methods of quantifying SD bias. Krumpal (2013) and Tourangeau and Yan (2007) provided comprehensive literature reviews regarding methods aimed at mitigating SD bias through design. In the field of hospitality and tourism, two studies have applied the latter techniques (Appendix 1).

The Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne and Marlowe, 1960) and the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 2002) are the two most commonly used SD-bias measurement scales, with the latter having a shortened version known as SDS-17 (Blake *et al.*, 2006). In both scales, respondents answer questions on a 7-point Likert scale; however, the results are interpreted as binary, reducing their usability in modeling. The two strongest ratings (for positively keyed questions, agree and strongly agree) indicate a tendency for bias, while the rest indicate no such tendency.



Existing analytical methods calculate the correlation between SD measurement results and the focal variables to identify biased answers, and factor analysis can reveal commonalities between desirability items and survey responses (Beretvas *et al.*, 2002). Hyman and Sierra (2012) developed an algorithm to detect mischievous respondent behavior. However, in all these methods, the corrective action is to exclude any responses that may indicate a high risk of bias from the analysis. Previous studies did not include SD bias as a variable in their statistical modeling since their solution was to clean the sample, removing potentially biased responses. We identified this as an important gap in previous research.

#### *The foundation of cynicism bias in surveys*

Cynicism among consumers is “a process of related cognitive, behavioral, and affective reactions expressed by initial suspicion, defensive attempts, and eventual alienation of the consumer” (Chylinski and Chu (2010) p. 799). In ethical consumerism, cynicism refers to consumers’ persistent distrust of the ethical or social values expressed by a company and their ensuing negative attitudes toward CSR initiatives and ethical products. Detert *et al.* (2008) found that cynicism may lead people to accept unethical actions. Chowdhury and Fernando (2013, p. 688) partially contradicted this finding, suggesting that “cynicism is only directly related to passive unethicity rather than active unethicity.”

Cynicism bias can clarify the contradiction between the active and passive consequences of cynicism. Odou and de Pechpeyrou (2011) divided consumer cynicism into four categories: defensive, offensive, subversive, and ethical cynicism. Of the four categories, subversive cynicism refers to “fearless speech toward others” (Odou and de Pechpeyrou, 2011, p. 1804), whereby verbal criticism is preferred over actionable criticism. This is similar to cynicism that

leads to non-actionable complaint behavior (Chylinski and Chu, 2010); both forms of cynicism have minimal impact on actions. Our definition of cynicism bias is linked with such non-actionable forms of cynicism.

In surveys with an ethical emphasis, cynicism may bias responses without leading to any associated negativity in a purchase situation. Podsakoff *et al.* (2003, p. 882) defined this source of bias as a transient mood state, or “the impact of relatively recent mood-inducing events to influence the manner in which respondents view themselves and the world around them.” News about irresponsible corporate behavior and greenwashing is abundant. Since CSR surveys serve as strong ethical or sustainable stimuli that can remind respondents about recent greenwashing scandals, they may induce a transient mood state and prompt response bias in a person with cynical tendencies. Consequently, such respondents protest against CSR they mistrust by downplaying its role in their responses. However, non-actionable cynicism will not affect their actual purchases, which are temporally distanced from any surveys and free from strong CSR input. Therefore, during a survey-induced transient mood state, cynicism creates a bias that reduces the value of CSR in consumers’ responses.

### *Cynicism measurement*

Currently, no specific methods of controlling cynicism bias in survey results exist. However, in social psychology, cynicism measurement has received scholarly attention and several measurement scales exist. These scales mostly focus on situations where cynicism impacts work outcomes and organizational behavior, e.g., in the police force or among sales personnel (Crank *et al.*, 1987; Guastello *et al.*, 1992; Turner and Valentine, 2001). Linking cynicism with corporations, Kanter and Mirvis (1989) investigated cynicism toward business leadership and

developed a scale for the purpose. Lee *et al.* (2010) supported the validity of a cynicism scale developed by George Hunter; this scale assesses trust toward corporations and politicians based on the inherent lack of trust that defines cynicism (Kanter and Mirvis, 1989). While none of these scales specifically measure subversive cynicism or complaint behavior, a survey situation that incorporates ethical aspects is likely to prompt these subtypes in cynical respondents, as discussed above. Therefore, we proposed that, during a transient mood state, a cynicism scale indicates cynicism bias.

### *Research hypotheses*

Beckmann (2007) proposed that quantitative CSR studies are particularly vulnerable to SD bias. To our knowledge, the only notable contribution regarding this topic in the field of hospitality and tourism was by Doran and Hanss (2019), who highlighted the potential impact of bias. For comparison, a recent review of 388 studies in the adjacent field of sustainable food research revealed that most studies glossed over SD bias and only two incorporated measures to reduce its influence (Cerri *et al.*, 2019). Therefore, a discussion regarding the depth and scope of this issue is missing.

Attempts to address SD bias in surveys have been sporadic in hospitality and tourism (Appendix 1), as well as in other business fields (Peloza and Shang, 2011). Psychology has conceptualized and demonstrated the existence of bias, but few CSR studies have used survey-instrument- and situation-design methods, or identified potentially biased responses from samples, to reduce its impact. Based on its conceptualization, SD bias can lead to respondents exaggerating or deflating the reported value of CSR. However, no earlier research has quantified this impact; therefore, its magnitude and detailed effects remain unknown. Therefore, to

introduce SD bias as a quantitative variable in the analysis of CSR in the field of hospitality and tourism, we tested the following hypothesis:

*H1. Social desirability bias moderates the influence of CSR characteristics on reported purchase intention.*

Consumer cynicism has received some attention in previous CSR research (Vallaster *et al.*, 2012). The hospitality and tourism field has acknowledged consumer skepticism toward CSR initiatives and the risks it creates (Zhang and Hanks, 2017). Furthermore, the fear of consumer cynicism can lead to greenhushing, wherein companies underreport their sustainability initiatives because they fear a cynical response (Font *et al.*, 2017). Despite this, consumer cynicism has been ignored as a potential cause of response bias in CSR surveys. Therefore, our second hypothesis focuses on the negative effect of cynicism bias on reported purchase intention during a survey-induced transient mood state:

*H2. Cynicism bias reduces the influence of CSR characteristics on reported purchase intention.*

## **Methodology**

### *The hybrid choice model approach*

Discrete choice models (McFadden, 1974) facilitate the study of consumers' purchase intentions. Choice survey respondents choose between alternatives based on their product attributes (e.g., price, performance), which depend on the research scenario. Based on random utility theory (Thurstone, 1927), the assumption is that the chosen alternative represents the highest total utility to the respondent; this utility is divided into observable (resulting from attributes) utility and

unobservable (random) utility. The discrete choice method estimates the influence of various product attributes on choice (observable utility), with a random distribution representing unobservable utility (Hensher *et al.*, 2015). As an advanced version of discrete choice models, the hybrid choice model (HCM; Abou-Zeid and Ben-Akiva, 2014; Walker and Ben-Akiva, 2002) allows latent psychological variables to be included in choice analysis via attitudinal questions. Using an HCM allowed us to incorporate the SD and cynicism biases as latent attitudinal variables in our analysis and investigate their impact on reported purchase intention (stated choice), the dependent variable in choice studies.

An HCM comprises a discrete choice model and a latent variable model (Figure 1), and these models are solved simultaneously (Bierlaire, 2016a). In the discrete choice model, product attributes and sociodemographic characteristics determine an alternative's observable utility to respondents (Hensher *et al.*, 2015). The chosen alternative, the latent variable indicators, and the sociodemographic data are the variables reported by the respondents, while product attributes are defined during survey development. In our HCM, the two biases moderated the utility provided by CSR attributes if respondents perceived them as socially desirable or approached them cynically (H1 and H2). This model with moderation is known as a behavioral mixture model (Walker and Ben-Akiva, 2011; Zanolli *et al.*, 2015).

To highlight the differences between traditional analyses that do not incorporate biases and our HCM approach, we estimated the widely used mixed multinomial logit (MMNL) model. It corresponds to the "discrete choice model" part of Figure 1 and does not incorporate latent variables. By comparing the two results, we were able to evaluate the importance and consequences of the two biases in further detail.

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Figure 1 about here

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### *Survey instrument*

We developed a survey that asked respondents to choose a hotel for a holiday. During preparatory interviews with industry experts, a trip to a Mediterranean beach island was deemed the most common holiday product relevant to our sample. We chose Tenerife as the location for our study to add realism for the respondents. It is a widely known beach tourism destination, chosen by TripAdvisor as one of the ten best islands in Europe (Business Insider, 2016).

During the survey, respondents were asked to choose between two alternative hotels (Hotel 1 and Hotel 2), which were presented with eight attributes and attribute levels (Table 1), also depicted in Figure 1 as observable variables not reported by the respondents. They could also refuse to choose between the specified alternatives by selecting a third option, “some other hotel.” The third alternative increased the validity of the scenario by offering a hotel not focused on CSR.

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Table 1 about here

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Three attributes represented the most important hotel choice criteria (distance to beach, hotel location, and price), identified during industry expert interviews. These three non-CSR attributes supported survey validity by creating a realistic choice scenario. The remaining five CSR

attributes presented the potential CSR characteristics of a hotel and were based on a model of CSR characteristics critical to consumer choice (Kuokkanen and Sun, 2019). These five attributes and their sublevels presented various orientations and stakeholder emphases regarding hotel CSR initiatives and differentiated between general CSR initiatives and those that fit the hotel business. They also described the potential ways in which a hotel can engage in CSR and two alternative methods to provide evidence of the results. The descriptors used for the attributes and attribute levels were refined through a multi-step process that included initial development, focus groups, and two phases of pilot tests, with feedback from the respondents at each stage regarding the clarity of the descriptors.

The survey comprised 24 choice scenarios divided into three blocks. The attribute levels (see Table 1) differed between the scenarios based on a D-efficient design specific to choice modeling (Hensher *et al.*, 2015), and results from a pilot study provided the estimator priors required to develop it. To create the design, we utilized Ngene (Choicemetrics, 2014), a specialist software for choice model experimental design. Each respondent made a choice in eight scenarios, the order of which were randomized to avoid learning effect bias. The median survey response time was 8 minutes and 28 seconds. We propose this as evidence that conducting such a survey is feasible among real hotel guests (vs. surveys that require volunteers in a laboratory experiment).

In addition to the choice scenarios, the respondents answered questions to determine their potential for SD and cynicism biases and provided sociodemographic details, such as age, gender, education, travel frequency, and income bracket. The SD and cynicism questions were indicators of the latent bias variables (Figure 1). The review of hospitality and tourism consumer studies (Appendix 1) revealed that no previous studies have measured the two biases, so we

relied on existing scales developed in psychology. We utilized 12 questions from the moralistic response tendencies subscale of BIDR (Paulhus, 2002; Table 2), following Steenkamp *et al.*'s (2010) recommendation regarding BIDR's suitability for business research. We adapted one question to its negative form ("I never drive faster than the speed limit.") to maintain a balance between positive and negative question keying and transformed the 12 binary responses into three 5-point Likert-scale variables (*SDLik1*, *SDLik2*, *SDLik3*), following Kuokkanen's (2017) procedure. These three variables were used as SD bias indicators in our analysis (Figure 1). We used Lee *et al.*'s (2010) cynicism scale to indicate cynicism bias due to its business orientation. We modified three questions from the "Trust Corporations" construct to fit the hotel scenario of this study (Table 2), and the respondents answered them using a 5-point Likert scale of agreement.

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Table 2 about here

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### *Data collection and analysis*

We obtained a panel of 308 UK respondents (2464 choices) from Qualtrics, a market research provider. This exceeded the minimum sample size of 227 required for estimator significance, as calculated using the Ngene software for experimental design. The respondents were a minimum of 18 years old and had at least considered a trip to a destination similar to the scenario. Thus, they were responsible for their own choices and familiar with the scenario they faced, supporting survey validity (Hensher *et al.*, 2015). We did not use survey-instrument- or situation-design methods to reduce SD bias since the analysis incorporates it in the results.



Before estimating the HCM, we verified the reliability and validity of the latent variables, SD bias (SDB) and cynicism bias (CB). The Cronbach's alpha value supported the reliability of both constructs ( $\alpha_{\text{SDB}} = 0.801$ ;  $\alpha_{\text{CB}} = 0.720$ ; Nunnally, 1978). The confirmatory factor analysis (CFA) supported the convergent validity of the latent constructs (GFI = 0.987; RMSEA = 0.042), with standardized factor loadings and average variance extracted ( $\text{AVE}_{\text{SDB}} = 0.58$ ;  $\text{AVE}_{\text{CB}} = 0.51$ ) all above 0.5 (Hair *et al.*, 2014). With an average variance extracted above between-construct correlation of 0.142, the discriminant validity was also acceptable.

Following Bierlaire (2016a), we tested different structural models before incorporating the choice component in the HCM. In the final model, all bias indicators were significant in reflecting the biases, as expected from the CFA results. We also tested various random mixing variables to improve the MMNL model fit, but they were statistically insignificant. This supports the existence of systematic biases over the arbitrary variation that random variables would suggest and reinforces the validity of our approach. We used Biogeme 2.5 (Bierlaire, 2016b), an open-source software developed specifically for choice models, to estimate the HCM and MMNL models. As the integrals in these two model specifications do not have closed-form solutions, we used maximum simulated likelihood estimation and employed modified Latin hypercube sampling to generate the random draws required for the simulation (Abou-Zeid and Ben-Akiva, 2014). The results were estimated using 1000 draws and further verified by 1500 draws without significant changes; this suggests the results are consistent.

## Results

The sample comprised 51.9/48.1 % female/male respondents with a median age of 47.5 years. Income was slightly skewed toward higher levels (a comparison with Department for Work and

Pensions, 2015, in brackets): <19000 GBP, 20% [30%]; 19000 to 48000 GBP, 53% [45%]; > 48000 GBP, 26% [25%]. The skew represents screening for respondents who had at least considered travel abroad. Since the behavioral mixture model used allows for heterogeneity in the sample, we divided the respondents into four generational groups for detailed analysis. The groups, with the proportion of the group in the UK population calculated based on ONS (2017) in brackets, were: Generation Y (<30 years, 16.9% [18%]), Generation X (30–51 years, 40.6% [35%]), Baby Boomers (52–70 years, 31.8% [31%]), and the Silent Generation (>70 years, 10.7% [16%]). The lower proportion of the Silent Generation is likely due to the online data collection method. Additionally, we identified three groups with previous travel frequency to destinations similar to the scenario: low, medium and high, based on the median (2.2) and average (6) number of trips (medium frequency > 2.2, 35.7%; high frequency > 6, 28.6%).

### *Social desirability and cynicism as causes of response bias*

As reviewed earlier, SD bias research has solely focused on eradicating biased responses, not quantifying the bias. Therefore, no previous theory could guide our search for CSR characteristics and customer segments that are prone to it. Instead, we had to explore situations where the bias plays a role within the model in Figure 1.

In the model with biases included (HCM), SD bias is a significant moderator of utility from five CSR characteristics for certain respondent profiles (Table 3). In terms of stakeholder emphasis, a company suggestion that customers should take responsibility for their consumption choices creates a biased response among baby boomers and the silent generation. This manifests as an exaggeration of its positive impact on stated intentions ( $SDB_{SH\ consumer} \times Gen_{BB\&Sil} =$

0.116,  $p < .01$ ). Focusing on suppliers, on the other hand, is undesirable among the silent generation, lowering the stated value of this characteristic ( $SDB_{SH\ supplier} \times GenSil = -0.083$ ,  $p = .04$ ). Frequent travelers exaggerate the influence of ethical CSR initiative orientation ( $SDB_{orientation\ ethics} \times TravelAbvAve = 0.091$ ,  $p = .02$ ). High fit of CSR initiatives with the company providing them inflates stated intentions among baby boomer generation ( $SDB_{fit\ high} \times GenBB = 0.045$ ,  $p = .05$ ). Finally, baby boomers perceive a reactive style of CSR initiatives negatively, understating the impact of such style on choice ( $SDB_{reactive} \times GenBB = -0.103$ ,  $p < .01$ ). These five cases represent quantifiable situations where SD bias moderates the influence of CSR characteristics on reported purchase intention and they support H1.

As previous empirical studies on cynicism bias are missing, we again had no theoretical guidance for detecting the CSR characteristics and customer segments that it affects. A counteractive style of CSR induces cynicism bias among female respondents (Table 3;  $CB_{counteractive} \times Gender = -0.079$ ,  $p = .03$ ). Women tend to overstate the negative impact of such a defensive approach to CSR due to cynicism during surveys, and this supports the existence of cynicism bias as proposed in H2.

We also tested hotel distance to beach and location for moderation by either bias but found none. This aligns with our expectation of the two biases existing only in conjunction with CSR characteristics (Figure 1) and supports the validity of the findings.

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Table 3 about here

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### *Impact on overall reported guest preferences*

To understand the overall impact of the biases on survey results we compared the results of the models with and without bias (HCM and MMNL; Table 4). The explanatory power of the MMNL model is low ( $\bar{\rho}^2 = 0.122$ ), likely due to respondent preference heterogeneity it cannot properly accommodate. This represents a known issue with this widely applied model. Including the two biases as moderators (HCM) increases explanatory power clearly ( $\bar{\rho}^2 = 0.602$ ), and the model clearly exceeds the criteria of 0.3 for acceptable power (Hensher *et al.*, 2015). The effect of unspecified differences between respondents, known as panel effect, is smaller in the HCM model (Table 3; MMNL:  $\sigma_{panel\ effect} = 2.87$ ,  $p < .001$ ; HCM:  $\sigma_{panel\ effect} = 2.20$ ,  $p < .001$ ). This suggests that biases connected to specific CSR characteristics explain respondent heterogeneity better than random differences.

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Table 4 about here

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Both models suggest a number of CSR characteristics significant to choice. A comparison of the models reveals the detailed effects of incorporating biases in the analysis; these somewhat differ from the biased characteristics covered earlier. Excluding bias, stakeholder emphasis toward the natural environment appears irrelevant to purchase intention. When biases are included, the characteristic becomes significant. The same is true with inactive style of initiatives, except that the impact of an inactive style is negative. On the other hand, ethical orientation of CSR initiatives and high fit of initiatives with the company providing them seem significant to choice without biases, but both become a product of bias in the HCM results.

## **Discussion and conclusions**

Response biases are a paradox in tourism and hospitality management research. Some studies mention their potential existence as a limitation but, as demonstrated in our review of related studies, still ignore them during analysis. Even studies that note them mostly shrug their influence off as a mere limitation. Our results highlight the importance of quantifying SD and cynicism as survey biases in studies that investigate the effect of CSR on reported purchase intention. The results support the existence of quantifiable biases when potential hotel guests report their purchase intentions in a CSR survey. While not all CSR characteristics induce bias, the effect distorts overall results (Table 4). Traditional analysis would suggest certain areas significant to purchase decision, but it appears that respondents only report biased intentions, or vice versa. The approach also provides a new statistical application of choice models that is capable of incorporating key biases in results. We thus respond to the call of Larson (2019) to develop new ways to address SD bias, and we urge future research to incorporate the biases in analysis.

### *Theoretical implications*

Our results quantified the proposed moderating effect of SD bias on reported purchase intention for the first time and allow detailed discussion of its nature. The bias is evident with CSR characteristics in four of the five categories tested, and thus no clear pattern of CSR that induces bias emerges. In three of the five instances discovered, respondents inflated their CSR positivity. We will discuss the two instances that demonstrated deflation of CSR as a separate topic.

Without SD bias incorporated into the model, an environmental emphasis would seem irrelevant to the respondents. This could be interpreted, incorrectly, as a reaction toward the

industry's poor environmental efforts (Font *et al.*, 2012), but instead it reflects bias. Focus on guests' personal responsibility induces bias that tempts respondents to inflate its importance, even when the overall impact of the characteristic remains negative. This matches the hedonistic nature of tourism, and the fact that people behave differently in terms of sustainability on vacation and at home (Font and McCabe, 2017; Miao and Wei, 2013). The respondents recognize the desirability of responsible consumption when responding to a survey and modify their answers accordingly. In reality, they expect hotels to emphasize the natural environment.

We propose that the same hedonism affects an ethical CSR orientation. Ethics is a fundamental component of the CSR conceptualization (Carroll, 1979), and a person with tendencies toward socially desirable responding would eagerly support ethical initiatives. However, in reality hedonism trumps an ethical approach toward others.

CSR fit with business also leads to inflated reported purchase intention. Considering the mostly positive but still mixed results on the benefits of fit in general CSR literature (Peloza and Shang, 2011), we believe this is not a hotel-specific finding. Instead, it could extend itself across business domains. It is plausible that some of the positive findings have been, in fact, a result of biased responses, but further research is required to investigate such an argument. Finally, it would seem that inactivity in CSR does not hurt hotels when biases are excluded from the model. However, the lack of action the industry stands accused of may become a competitive disadvantage for companies that do not improve their behavior, a fact hidden behind SD bias.

Our results also indicate a phenomenon not discussed in earlier literature. We call our finding reverse SD bias, as the negative moderating impact of *SDB* detected in conjunction with supplier focus and reactive CSR style (Table 3) amount to social undesirability of these items. Previous knowledge only highlights the role of SD bias in inflating positive attitudes toward

ethical behavior. Reverse SD bias causes the opposite effect, but it remains in line with the definition of SD. We tested these characteristics also for cynicism bias but found none.

Therefore, the respondents are not cynical about such CSR, but they perceive highlighting the two areas undesirable.

Based on the results, it thus appears that potential guests do not evaluate only the absolute desirability of CSR when asked to state their purchase intention. In addition, they perform such evaluation in relative terms. The reputation of the hospitality and tourism industry as a laggard in CSR and sustainability could explain this. A reactive style implies an undesirable lateness in action to rectify the consequences of doing business, while proactive companies appear virtuous. The former is undesirable, but excluding bias, a reactive initiative style seems comparable to a proactive one. In the hotel business, initiatives that address existing issues are important to potential guests, but during surveys respondents deflate this importance. Reaction, after all, suggests the hotel in question could belong to the CSR laggards of the industry.

The reverse SD bias detected with supplier emphasis may also be hotel-specific. Outside the industry, several scandals have plagued the supply chains of high-visibility multinational companies in recent years. Such reoccurring negative news may reduce the desirability of supplier-oriented CSR initiatives over local community or natural environment focus, as suggested by our results. Local communities and the natural environment are generally visible stakeholders in hospitality and tourism, and consumers perceive highlighting the importance of a scandal-ridden supply chain undesirable when compared to the two other groups.

While consumer cynicism is as an attitude that can hurt companies and particularly their CSR efforts (Bhattacharya and Sen, 2004; Jahdi and Acikdilli, 2009), its role in creating biased survey results has not been explored before. We discovered cynicism bias, or the phenomenon

where respondents engage in subversive cynicism or complaint behavior during a survey due to a transient mood state created by strong CSR stimuli. Our results suggest that cynicism bias further deflates the value of counteractive CSR. A counteractive style, or an attempt by a hotel to deflect problems and avoid taking responsibility, has an expected negative influence on hotel choice even excluding the bias. The further reinforcement of this negative effect is in line with the industry's greenwashing woes; primed by these woes, women readily protest against attempts at this.

The effect is technically similar to that of the reverse SD bias discussed earlier. However, the theoretical underpinnings of the two phenomena differ. While SD bias links with a misleading presentation of self through insincere responses, cynicism bias is a protest against CSR stimulus in a survey. As our approach is the first attempt to quantify this bias, we are unable to compare it with previous findings. However, we urge future inclusion of cynicism bias in all tourism and hospitality CSR research and argue that this will improve result quality.

### *Practical implications*

In terms of the respondent profiles, baby boomers and the silent generation most often demonstrated SD bias. Younger generations have grown up with CSR as a recognized business imperative; however, mainstream business only adopted CSR when the two older segments were already adults. This may explain the discovered bias.

Frequent travelers demonstrate SD bias toward ethical CSR orientation, aligning our findings with earlier speculations of bias among this segment (Lee *et al.*, 2017). People who regularly visit a destination are likely more aware of the social problems that tourism can create.



However, they may be afraid of the costs that mitigating these issues might add to their frequent travel. Consequently, their answers are biased to favor ethical CSR without subsequent action.

Hotel managers may seek to engage in CSR initiatives based on results that indicate favorable customer reactions to CSR, such as the studies in Appendix 1, and expect business benefits. However, our results demonstrate that respondents report biased purchase intentions. Therefore, managers should not take survey results at face value when selecting CSR initiatives and target segments, particularly when their goal is to achieve a competitive advantage via CSR. For example, our results suggest that baby boomers and the silent generation are prone to biased responses. In contrast, if a younger target market reports that CSR impacts purchase intention, it would more likely reflect reality. Frequent travelers may also exaggerate their enthusiasm toward CSR. Therefore, survey results need further scrutiny to account for potentially biased responses before a hotel develops CSR initiatives that target a segment.

We are not suggesting that these detected biases are generalizable for all hotels. For example, business travelers could demonstrate different biases. Therefore, to avoid investing in CSR initiatives that do not create the desired (positive) impact on customers, marketing research must incorporate SD and cynicism biases in their analysis. For this purpose, we developed a method that allows response duration and research arrangements that make it feasible for real guests to complete surveys. Choice studies are a common marketing tool and our approach provides 15 Likert-scale questions for respondents to answer. This is a worthwhile extension to obtaining results that reflect consumers' real purchase intentions better.

As a further practical contribution, we extended the use of choice models in hospitality and tourism CSR studies by adding hybrid models to complement the introduction of choice models in 2018. This can benefit the field beyond CSR research since this method can

incorporate other latent variables significant to human choice, for example in developing customer segmentation. This is standard practice in transportation studies. Such studies use HCMs that incorporate attitudes, such as comfort or safety perceptions, to explain choice. Following these examples, our method can contribute to research by allowing the inclusion of quantifiable attitudinal variables significant to guest choice. Furthermore, other fields of business that study the influence of CSR on reported consumer intentions and where biases also play a role could benefit from this method also.

### *Limitations and further research*

The first limitation to our results was our reliance on existing cynicism measurement methods. The questions we used were developed to detect cynicism toward business but did not focus on subversive cynicism and complaint behavior. Therefore, we advocate the future development of questions for this purpose. Currently, it is possible that other forms of cynicism, not prompted by a transient mood state, could also affect the results. Moreover, the self-reporting nature of the survey also creates a potential limitation. The SD questions could be prone to SD bias themselves, although their developers aimed to minimize this possibility. Mitigating this limitation partially, our model analyzes the relative, instead of absolute, SD bias. We tested the survey instrument with multiple rounds of pilots to ensure that respondents would be able to understand it correctly, a key consideration in assessing choice study validity. However, it is possible for respondents to develop response heuristics. Our UK-based sample limits the generalizability of the results, but we believe that the findings also represent other Western hotel guests in a holiday setting.

Understanding the differences in response biases between customer segments requires further research. For example, it would be highly beneficial for hotels to confirm whether younger respondents are more honest in their surveys, as our results suggest. Our discovery of reverse SD bias also merits further inquiry. Our results propose its existence, and guest interviews would help to analyze the phenomenon in-depth to understand how people evaluate the relative desirability of alternatives. Finally, the possibility to quantify consumer bias toward various CSR characteristics in the industry offers an interesting avenue for further research. Repetitions of this study could allow for the generalization of the average bias in various market segments. With such values, research beyond our HCM could incorporate the two biases, which could serve as a control variable in a wider range of quantitative hotel CSR studies.

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Table 1: Survey attributes and their levels displayed in the scenarios. SH = stakeholder

Attribute	Attribute levels	Variable name in the model
<i>General attributes:</i>		
Distance to beach	50, 200, 350, 500 meters	Distance
Location	In a small town; Outside town	Location
Room price per week (£)	450, 550, 650, 750	Price
<i>CSR attributes:</i>		
Main focus of hotel responsibility	Environmentally efficient design of the property	SH emphasis environment
	Raising awareness of negative consequences of mass tourism	SH emphasis consumer
	Development of local community livelihoods	SH emphasis local community
	Selecting suppliers with responsible business practices	SH emphasis supplier
The single most emphasized responsible action by the hotel	Minimizing water use	Orientation sustainability
	Pay above minimum wage to employees	Orientation ethics
	Standing commitment to spend 1% of revenue to charitable support	Orientation philanthropy
Type of charitable support by the hotel	Participation in providing hotel education and apprenticeships to underprivileged children	Fit high
	Charitable donations to well-reputed general aid organizations	Fit low
Style of responsible actions	Actions <u>preventing</u> future social or environmental problems caused by the hotel	Style proactive
	Actions <u>removing</u> existing social or environmental problems caused by the hotel	Style inactive
	Actions <u>decreasing</u> existing social or environmental problems created by the hotel	Style inactive
	Actions <u>shifting emphasis away</u> from social or environmental problems created by the hotel	Style counteractive
Key supporting facts	Independent accreditation of hotel responsibility	Verification external
	Responsibility report authored by the hotel	Verification internal

Table 2: Attitudinal variables in the survey.

<u>Tendency toward socially desirable responding (<i>SD bias indicators</i>)</u>
I sometimes tell lies if I have to.
I never cover up my mistakes.
I always obey laws, even if I am unlikely to get caught.
I have said something bad about a friend behind his or her back.
When I hear people talking privately, I avoid listening.
I have received too much change from a salesperson without telling him or her.
When I was young I sometimes stole things.
I have done things that I don't tell other people about.
I never take things that don't belong to me.
I don't gossip about other people's business.
I sometimes try to get even rather than forgive and forget.
I never drive faster than the speed limit.
Adapted from the BIDR (Paulhus, 2002)
<u>Cynicism toward hotels (<i>Cynicism indicators</i>)</u>
Most large hotel companies do not exploit employees.
I don't trust most hotel companies.
Large hotel companies are generally trustworthy and honorable.
Adapted from Lee, Restori and Katz, 2010

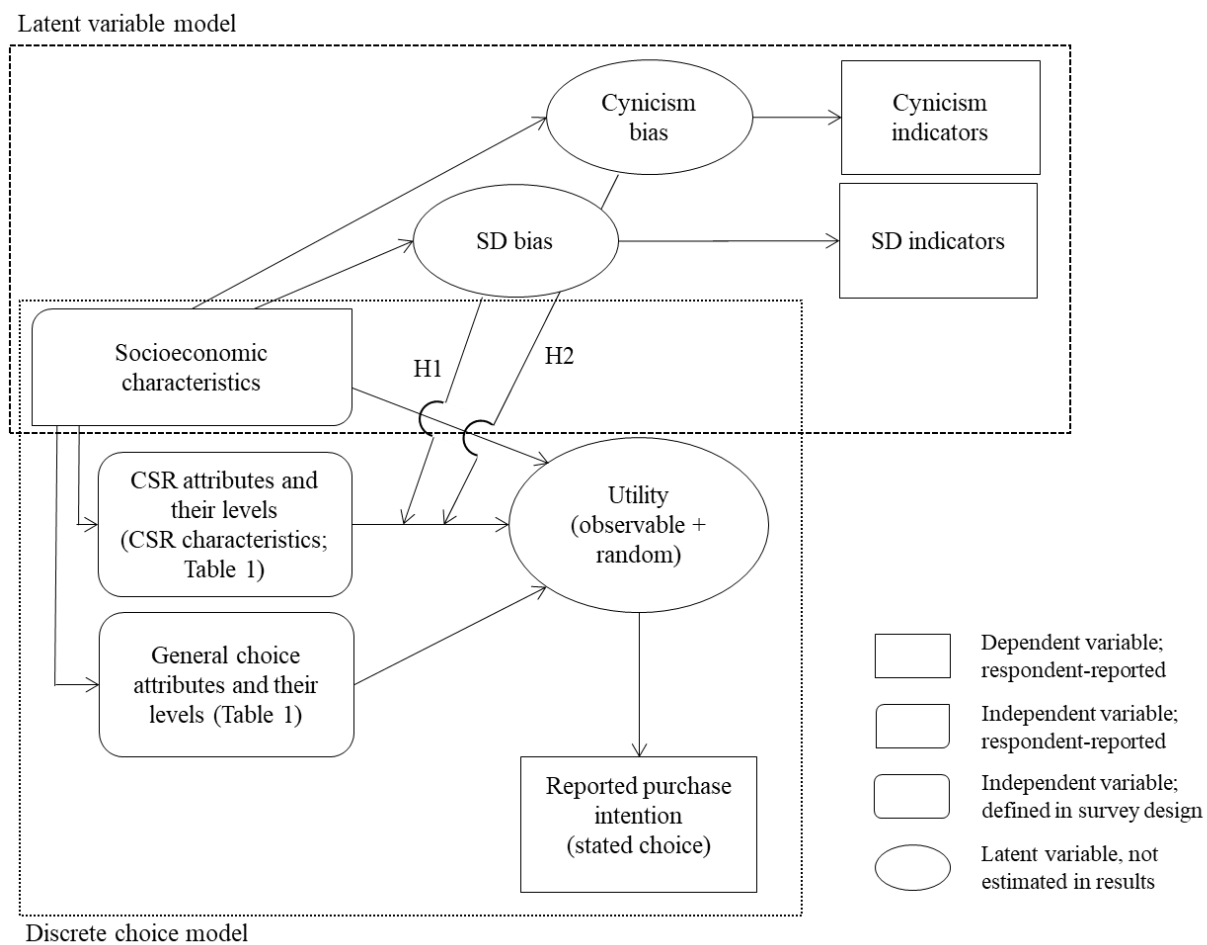
Table 3: Results of the two model specifications. SDB = Social desirability bias, CB = cynicism bias. Coefficients with robust standard errors in parentheses. †  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Model specification Attribute / Attribute level	Mixed Multinomial Logit (MMNL)			Hybrid Choice Model (HCM)		
Distance to beach	-0.177	***	(0.03)	-0.173	***	(0.03)
Location outside town	-0.311	***	(0.04)	-0.311	***	(0.04)
Location in town	0.311	***	(0.04)	0.311	***	(0.04)
Log room price	-4.18	***	(0.31)	-4.26	***	(0.31)
SH emphasis environment	0.086		(0.07)	0.196	*	(0.08)
SH emphasis supplier	0.077		(0.06)	0.083		(0.06)
SH emphasis local community	0.153	**	(0.05)	0.163	**	(0.06)
SH emphasis consumer	-0.316	***	(0.06)	-0.441	***	(0.07)
Orientation sustainability	0.006		(0.06)	0.117		(0.08)
Orientation ethics	0.195	**	(0.07)	0.057		(0.09)
Orientation philanthropy	-0.201	***	(0.06)	-0.173	***	(0.03)
Fit low	-0.115	**	(0.04)	-0.0655		(0.04)
Fit high	0.115	**	(0.04)	0.066		(0.04)
Style inactive	0.007		(0.07)	-0.229	*	(0.10)
Style proactive	0.157	*	(0.07)	0.171	*	(0.07)
Style reactive	0.159	*	(0.06)	0.245	***	(0.07)
Style counteractive	-0.323	***	(0.07)	-0.187	*	(0.09)
Verification internal	-0.129	**	(0.04)	-0.135	**	(0.04)
Verification external	0.129	**	(0.04)	0.135	**	(0.04)
$\sigma_{\text{panel}}$ effect	2.87	***	(0.32)	2.20	***	(0.31)
ASC <sub>other hotel</sub>	-23.00	***	(1.44)	-22.50	***	(1.44)
SDB <sub>SH supplier</sub> X GenSil				-0.083	*	(0.04)
SDB <sub>SH consumer</sub> X GenBB&Sil				0.116	**	(0.04)
SDB <sub>orientation ethics</sub> X TravelAbvAve				0.091	*	(0.04)
SDB <sub>fit high</sub> X GenBB				0.045	†	(0.02)
SDB <sub>style reactive</sub> X GenBB				-0.103	**	(0.04)
CB <sub>style counteractive</sub> X Gender				-0.079	*	(0.04)

Table 4: A comparison of CSR characteristic significance to choice between the two model specifications (impact sign +/-, NS = not significant) with differences in bold.

Model specification	Mixed Multinomial Logit (MMNL)	Hybrid Choice Model (HCM)
Explanatory power ( $\rho^2$ )	0.122	0.602
<b>Stakeholder emphasis environment</b>	<b>NS</b>	<b>+</b>
Stakeholder emphasis supplier	NS	NS
Stakeholder emphasis local community	+	+
Stakeholder emphasis consumer	-	-
Orientation sustainability	NS	NS
<b>Orientation ethics</b>	<b>+</b>	<b>NS</b>
Orientation philanthropy	-	-
<b>Fit low</b>	<b>+</b>	<b>NS</b>
<b>Fit high</b>	<b>+</b>	<b>NS</b>
<b>Style inactive</b>	<b>NS</b>	<b>-</b>
Style proactive	+	+
Style reactive	+	+
Style counteractive	-	-
Verification internal	-	-
Verification external	+	+

Figure 1: A hybrid choice model incorporating key response biases in analysis of reported purchase intention.





Appendix I: Hospitality and tourism research focusing on the influence of CSR on customers searched for social desirability and cynicism. ATR = *Annals of Tourism Research*, CHQ = *Cornell Hospitality Quarterly*, CRR = *Corporate Reputation Review*, IJCHM = *International Journal of Contemporary Hospitality Management*, IJHM = *International Journal of Hospitality Management*, IJHTA = *International Journal of Hospitality and Tourism Administration*, JBR = *Journal of Business Research*, JCTR = *Journal of China Tourism Research*, JHLM = *Journal of Hospitality & Leisure Marketing*, JHMM = *Journal of Hospitality Marketing and Management*, JHTR = *Journal of Hospitality and Tourism Research*, JRCS = *Journal of Retailing and Consumer Services*, JSM = *Journal of Services Marketing*, JOST = *Journal of Sustainable Tourism*, JTTM = *Journal of Travel and Tourism Marketing*, TM = *Tourism Management*.

Author(s), year, article name	Pub	SD bias a limitatio n	SD bias mitigation	Cynicis m
Albus, H. and Ro, H. (2017), "Corporate social responsibility: The effect of green practices in a service recovery"	JHTR			
Baker, M.A., Davis, E.A. and Weaver, P.A. (2014), "Eco-friendly attitudes, barriers to participation, and differences in behavior at green hotels"	CHQ	x		
Campbell, J., DiPietro, R.B. and Remar, D. (2014), "Local foods in a university setting: Price consciousness, product involvement, price/quality inference and consumer's willingness-to-pay"	IJHM			
Chen, A. and Peng, N. (2012), "Green hotel knowledge and tourists' staying behavior"	ATR			
Chen, M.F. and Tung, P.J. (2014), "Developing an extended Theory of Planned Behavior model to predict consumers' intention to visit green hotels"	IJHM			
DiPietro, R.B., Gregory, S. and Jackson, A. (2013), "Going green in quick-service restaurants: customer perceptions and intentions"	IJHTA			
Han, H., Hsu, L.T. (Jane) and Lee, J.S. (2009), "Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process"	IJHM			
Han, H., Hsu, L.-T. (Jane) and Sheu, C. (2010), "Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities"	TM			
Han, H. and Kim, Y. (2010), "An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior"	IJHM			
Han, H., Lee, J.S., Trang, H.L.T. and Kim, W. (2018), "Water conservation and waste reduction management for increasing guest loyalty and green hotel practices"	IJHM			
Han, H. and Yoon, H.J. (2015), "Hotel customers' environmentally responsible behavioral intention: Impact of key constructs on decision in green consumerism"	IJHM			
Hu, H.H., Parsa, H.G. and Self, J. (2010), "The dynamics of green restaurant patronage"	CHQ			
Huang, H.C., Lin, T.H., Lai, M.C. and Lin, T.L. (2014), "Environmental consciousness and green customer behavior: An examination of motivation crowding effect"	IJHM			
Jarvis, D., Stoeckl, N. and Liu, H.B. (2016), "The impact of economic, social and environmental factors on trip satisfaction and the likelihood of visitors returning"	TM			
Kang, K.H., Stein, L., Heo, C.Y. and Lee, S. (2012), "Consumers' willingness to pay for green initiatives of the hotel industry"	IJHM			

Kim, E. and Ham, S. (2016), “Restaurants’ disclosure of nutritional information as a corporate social responsibility initiative: Customers’ attitudinal and behavioral responses”	IJHM			
Kim, J. (Sunny), Song, H., Lee, C. and Lee, J.Y. (2017), “The impact of four CSR dimensions on a gaming company’s image and customers’ revisit intentions”	IJHM		x	
Kim, Y.J., Njite, D. and Hancer, M. (2013), “Anticipated emotion in consumers’ intentions to select eco-friendly restaurants: Augmenting the theory of planned behavior”	IJHM			
Kucukusta, D., Mak, A. and Chan, X. (2013), “Corporate social responsibility practices in four and five-star hotels: Perspectives from Hong Kong visitors”	IJHM			
Lee, H.Y., Bonn, M.A., Reid, E.L. and Kim, W.G. (2017), “Differences in tourist ethical judgment and responsible tourism intention: An ethical scenario approach”	TM	x	Anonymity; privacy	
Lee, J.S., Hsu, L.T., Han, H. and Kim, Y. (2010), “Understanding how consumers view green hotels: How a hotel’s green image can influence behavioural intentions”	JOST			
Lee, M., Han, H. and Willson, G. (2011), “The role of expected outcomes in the formation of behavioral intentions in the green-hotel industry”	JTTM			
Liu, M., Wong, I., Shi, G., Chu, R. and Brock, J. (2014), “The impact of corporate social responsibility (CSR) performance and perceived brand quality on customer-based brand preference”	JSM	x		
Martínez García de Leaniz, P., Herrero Crespo, Á. and Gómez López, R. (2018), “Customer responses to environmentally certified hotels: the moderating effect of environmental consciousness on the formation of behavioral intentions”.	JOST	x	Respondent priming	
Martínez García de Leaniz, P. and Rodríguez Del Bosque Rodríguez, I. (2015), “Exploring the antecedents of hotel customer loyalty: A social identity perspective”	JHM M			
Martínez, P. and Rodríguez del Bosque, I. (2013), “CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction”	IJHM			
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Namkung, Y. and Jang, S. (Shawn). (2017), “Are consumers willing to pay more for green practices at restaurants?”	JHTR			
Olya, H.G.T., Bagheri, P. and Tümer, M. (2019), “Decoding behavioural responses of green hotel guests: A deeper insight into the application of the theory of planned behaviour”	IJCH M			
Parsa, H.G., Lord, K.R., Putrevu, S. and Kreeger, J. (2015), “Corporate social and environmental responsibility in services: Will consumers pay for it?”	JRCS			
Prud’homme, B. and Raymond, L. (2013), “Sustainable development practices in the hospitality industry: An empirical study of their impact on customer satisfaction and intentions”	IJHM			
Rahman, I., Park, J. and Chi, C.G.Q. (2015), “Consequences of ‘greenwashing’: Consumers’ reactions to hotels’ green initiatives”	IJCH M	x		
Sirakaya-Turk, E., Baloglu, S. and Mercado, H.U. (2014), “The efficacy of sustainability values in predicting travelers’ choices for sustainable hospitality businesses”	CHQ			
Song, H.J., Lee, C.-K., Kang, S.K. and Boo, S. (2012), “The effect of environmentally friendly perceptions on festival visitors’ decision-making process using an extended model of goal-directed behavior”.	TM			
Su, L., Huang, S. (Sam), van der Veen, R. and Chen, X. (2014), “Corporate social responsibility, corporate reputation, customer emotions and behavioral intentions: A structural equation modeling analysis”	JCTR			

Su, L., Pan, Y. and Chen, X. (2017), "Corporate social responsibility: Findings from the Chinese hospitality industry".	JRCS	
Su, L. and Swanson, S.R. (2017), "The effect of destination social responsibility on tourist environmentally responsible behavior: Compared analysis of first-time and repeat tourists".	TM	
Su, L., Swanson, S.R. and Chen, X. (2015), "Social responsibility and reputation influences on the intentions of Chinese Huitang Village tourists: Mediating effects of satisfaction with lodging providers"	IJCH M	
Teng, Y.M., Wu, K.S. and Liu, H.H. (2015), "Integrating altruism and the Theory of Planned Behavior to predict patronage intention of a green hotel"	JHTR	
Ting, C. Te, Hsieh, C.M., Chang, H.P. and Chen, H.S. (2019), "Environmental consciousness and green customer behavior: The moderating roles of incentive mechanisms"	<i>Sustain- ability</i>	
Tsai, C.-W. and Tsai, C.-P. (2008), "Impacts of consumer environmental ethics on consumer behaviors in green hotels"	JHLM	
Verma, V.K., Chandra, B. and Kumar, S. (2019), "Values and ascribed responsibility to predict consumers' attitude and concern towards green hotel visit intention"	JBR	x
Zhang, L., Yang, W. and Zheng, X. (2018), "Corporate social responsibility: The effect of need-for-status and fluency on consumers' attitudes"	IJCH M	

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